

**CITY OF ATTLEBORO
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report

January 1, 2007

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Report Summary:

<u>Highlights</u>	<u>January 1, 2004</u>	<u>January 1, 2007</u>
<u>Contributions</u>		
Funding Schedule FY 2008	\$3,870,000	\$4,551,457
Funding Schedule FY 2009	4,947,447	4,613,690
<u>Funded Ratios</u>		
GAS No. 25	62.7%	75.5%
<u>Participants</u>		
Actives	604	671
Retirees and Beneficiaries	380	362
Vested	14	0
Inactives	113	112
Disabled	<u>46</u>	<u>43</u>
Total	1,157	1,188
<u>Payroll</u>		
Payroll of Active Members	\$21,799,568	\$24,238,213
Average Payroll	36,092	36,123
<u>Normal Cost</u>		
Employer	1,150,395	1,477,028
Employee	1,829,418	1,973,554
Administrative Expenses	<u>128,850</u>	<u>160,000</u>
Total	3,108,663	3,610,582
<u>Actuarial Accrued Liabilities</u>		
Actives	45,461,073	57,761,454
Retirees, Beneficiaries, Disabilities and Inactives	<u>59,569,390</u>	<u>61,183,005</u>
Total	105,340,466	118,944,459
<u>Actuarial Value of Assets</u>	<u>66,028,724</u>	<u>89,750,844</u>
<u>Unfunded Actuarial Accrued Liabilities</u>	\$39,311,742	\$29,193,615

Introduction

This report presents the City of Attleboro actuarial valuation findings as of January 1, 2007, under the Commonwealth of Massachusetts Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2007.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the City of Attleboro Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2007.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

The unfunded liability was 10,577,665 less than expected on January 1, 2007. The decrease is the result of net favorable actuarial experience during the preceding years. The primary components of the favorable experience were retiree mortality, lower than expected salary increases, and an annual investment return on assets greater than the 8% assumption.

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Table I

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Superannuation	\$1,905,081	\$2,380,635
Termination	299,621	317,231
Death	236,193	178,457
Disability	538,918	574,259
Administrative Expenses	<u>128,850</u>	<u>160,000</u>
Total Normal Cost	3,108,663	3,610,582
% of Pay	14.3%	14.9%
Employee Contributions	1,829,418	1,973,554
% of Pay	8.4%	8.1%
Employer Normal Cost	\$1,279,245	\$1,637,028
% of Pay	5.9%	6.8%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits earned by the actives and inactive. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Actives		
Superannuations	\$40,706,837	\$50,266,708
Termination	(500,331)	1,053,831
Death	1,645,382	1,896,018
Disability	3,609,185	4,544,897
Retirees and Inactives		
Retirees and Beneficiaries	48,224,893	51,953,738
Vested	921,977	0
Terminated (Refund)	310,003	760,427
Disabled	<u>10,422,520</u>	<u>8,468,840</u>
Total	\$105,340,466	\$118,944,459

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Actives		
Superannuation	N/A	\$73,259,675
Termination	N/A	2,414,110
Death	N/A	3,490,358
Disability	N/A	10,674,820
Retirees and Inactives		
Retirees and Beneficiaries	48,224,893	51,953,738
Vested	921,977	0
Terminated (Refund)	310,003	760,427
Disabled	<u>10,422,520</u>	<u>8,468,840</u>
Total	N/A	\$151,021,968

Funded Status and Appropriations:

Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Cash equivalents	\$6,331,273	\$2,374,735
Short term investments	0	0
Fixed income securities	17,546,000	18,937,599
Equities	30,815,049	46,162,027
International	6,326,282	10,555,786
Real Estate	3,081,033	9,773,114
Venture Capital	0	0
Other	0	0
Accounts receivable	1,957,020	1,941,104
Accounts payable	(177,741)	0
Accrued income	<u>149,808</u>	<u>6,479</u>
Total Market Value	\$66,028,724	\$89,750,844
Total Actuarial Value	\$66,028,724	\$89,750,844

Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

Table VI

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Actuarial Accrued Liability	\$105,340,466	\$118,944,459
Actuarial Assets	<u>66,028,724</u>	<u>89,750,844</u>
Unfunded Actuarial Accrued Liability	\$39,311,742	\$29,193,615
Funded Status	62.7%	75.5%

Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the prior unfunded actuarial accrued liability by June 30, 2022
\$ 24,690,929 over 15 years with 4.252% increasing payments
- Level amortization of the 1992 Early Retirement Incentive by June 30, 2008
\$ 93,937 over 1 year
- Increasing amortization of the 2003 Early Retirement Incentive by June 30, 2019
\$ 4,408,749 over 12 years with 4.5% increasing payments
- Interest adjustment for payments deposited at the beginning of the fiscal year.

The pension appropriation is shown in Table VII.

Table VII

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
Normal cost	\$1,349,607	\$1,637,028
Amortization payment of the unfunded accrued liability	2,208,901	2,083,420
Amortization payment of 1992 ERI liability	82,295	93,937
Amortization payment of 2003 ERI liability	<u>383,318</u>	<u>437,543</u>
Total cost	\$4,024,121	\$4,251,928
% of Pay	18.5%	17.5%
Fiscal 2008 cost	\$4,851,320	\$4,551,457
Fiscal 2009 cost	\$4,947,447	\$4,613,690

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2028 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be spread over the fiscal year.

The employer total cost, as a percentage of payroll, is expected to decrease gradually over the next 15 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. For FYE 2008, the total cost represents on average about 18.8% of payroll, decreasing to about 5.0% by the time the unfunded liabilities are fully paid off. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

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Appropriation Forecast

<u>Fiscal</u> <u>Year</u> <u>Ending</u>	<u>Payroll*</u>	<u>Employee</u> <u>Contribution</u>	<u>Employer</u> <u>Normal Cost</u> <u>with Interest</u>	<u>Amortization</u> <u>Payments</u> <u>with Interest</u>	<u>Employer</u> <u>Total Cost</u> <u>with Interest</u>	<u>Employer</u> <u>Total Cost</u> <u>% of Payroll</u>	<u>Funded</u> <u>Ratio %**</u>
2008	\$24,238,213	\$1,973,554	\$1,752,324	\$2,799,133	\$4,551,457	18.8	75.5
2009	\$25,328,933	\$2,092,223	\$1,799,217	\$2,814,473	\$4,613,690	18.2	77.0
2010	\$26,468,735	\$2,217,575	\$1,846,781	\$2,935,358	\$4,782,139	18.1	78.5
2011	\$27,659,828	\$2,349,972	\$1,894,984	\$3,061,438	\$4,956,422	17.9	80.0
2012	\$28,904,520	\$2,489,795	\$1,943,784	\$3,192,936	\$5,136,720	17.8	81.6
2013	\$30,205,223	\$2,637,443	\$1,993,140	\$3,330,085	\$5,323,225	17.6	83.2
2014	\$31,564,458	\$2,793,337	\$2,043,001	\$3,473,128	\$5,516,129	17.5	84.8
2015	\$32,984,859	\$2,957,921	\$2,093,314	\$3,622,318	\$5,715,632	17.3	86.5
2016	\$34,469,178	\$3,131,661	\$2,144,017	\$3,777,920	\$5,921,937	17.2	88.2
2017	\$36,020,291	\$3,315,048	\$2,195,046	\$3,940,209	\$6,135,255	17.0	89.9
2018	\$37,641,204	\$3,508,598	\$2,246,325	\$4,109,473	\$6,355,798	16.9	91.7
2019	\$39,335,058	\$3,712,854	\$2,297,774	\$4,286,012	\$6,583,786	16.7	93.5
2020	\$41,105,135	\$3,928,389	\$2,349,304	\$3,675,765	\$6,025,069	14.7	95.3
2021	\$42,954,866	\$4,155,803	\$2,400,820	\$3,832,059	\$6,232,879	14.5	96.8
2022	\$44,887,835	\$4,395,730	\$2,452,215	\$3,994,998	\$6,447,213	14.4	98.4
2023	\$46,907,788	\$4,648,834	\$2,503,373	\$0	\$2,503,373	5.3	100.0
2024	\$49,018,639	\$4,915,817	\$2,554,170	\$0	\$2,554,170	5.2	100.0
2025	\$51,224,477	\$5,197,414	\$2,604,469	\$0	\$2,604,469	5.1	100.0
2026	\$53,529,579	\$5,494,400	\$2,654,124	\$0	\$2,654,124	5.0	100.0
2027	\$55,938,410	\$5,807,591	\$2,702,972	\$0	\$2,702,972	4.8	100.0
2028	\$58,455,638	\$6,137,842	\$2,750,843	\$0	\$2,750,843	4.7	100.0
2029	\$61,086,142	\$6,414,045	\$2,874,631	\$0	\$2,874,631	4.7	100.0
2030	\$63,835,018	\$6,702,677	\$3,003,990	\$0	\$3,003,990	4.7	100.0
2031	\$66,707,594	\$7,004,297	\$3,139,169	\$0	\$3,139,169	4.7	100.0
2032	\$69,709,436	\$7,319,491	\$3,280,432	\$0	\$3,280,432	4.7	100.0
2033	\$72,846,361	\$7,648,868	\$3,428,051	\$0	\$3,428,051	4.7	100.0
2034	\$76,124,447	\$7,993,067	\$3,582,313	\$0	\$3,582,313	4.7	100.0
2035	\$79,550,047	\$8,352,755	\$3,743,518	\$0	\$3,743,518	4.7	100.0
2036	\$83,129,799	\$8,728,629	\$3,911,976	\$0	\$3,911,976	4.7	100.0
2037	\$86,870,640	\$9,121,417	\$4,088,015	\$0	\$4,088,015	4.7	100.0
2038	\$90,779,819	\$9,531,881	\$4,271,975	\$0	\$4,271,975	4.7	100.0
2039	\$94,864,911	\$9,960,816	\$4,464,214	\$0	\$4,464,214	4.7	100.0

* Calendar basis

** Beginning of Fiscal Year

GASB Statements No. 25 and No. 27

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to \$0. The required disclosure information is shown in Table VIII.

Table VIII

	<u>January 1, 2004</u>	<u>January 1, 2007</u>
(1) Actuarial Accrued Liability	\$105,340,466	\$118,944,459
(2) Actuarial Value of Assets	<u>66,028,724</u>	<u>89,750,844</u>
(3) Unfunded Actuarial Accrued Liability	39,311,742	29,193,615
(4) Funded Ratio (2)/(1)	62.7%	75.5%
(5) Covered Payroll	\$21,799,568	\$24,238,213
(6) UAAL as a percentage of payroll: (3)/(5)	180.3%	120.4%
(7) Annual Required Contribution (ARC)	\$4,292,090	\$4,551,457
(8) Net Pension Obligation	\$0	\$0

PERAC Annual Statement
APPENDIX PAGE 3
ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Buck Consultants as of January 1, 2007.

The normal cost for employees on that date was:	\$1,973,554	8.1% of pay
The normal cost for the employer was:	1,477,028	6.1% of pay
 The actuarial liability for active members was:		\$57,761,454
The actuarial liability for retired members was:		61,183,005
Total actuarial accrued liability:		118,944,459
System assets as of that date:		89,750,844
Unfunded actuarial accrued liability:		\$29,193,615
 The ratio of system's assets to total actuarial liability was		75.5%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	8.0%
Rate of Salary Increase:	5.0%

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a percent of Covered Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/c
01/01/07	\$89,750,844	\$118,944,459	\$29,193,615	75.5%	\$24,238,213	120.4%
01/01/04	66,028,724	105,340,466	\$39,311,742	62.7%	21,799,607	180.3%
01/01/01	55,187,055	84,885,226	\$29,698,171	65.0%	20,608,634	144.1%
01/01/98	40,837,836	69,407,224	\$28,569,388	58.8%	16,441,243	173.8%
01/01/95	24,337,698	51,002,000	\$26,664,302	47.7%	12,779,325	208.7%
01/01/92	20,092,680	41,732,515	\$21,639,835	48.1%	10,527,926	205.5%

Attach Copy of Current Approved Funding Schedule

EXHIBITS

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Age/Service Distribution with Salary as of January 1, 2007

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
20-24	13	0	0	0	0	0	0	0	0	0	13
	18,049	0	0	0	0	0	0	0	0	0	18,049
25-29	32	7	0	0	0	0	0	0	0	0	39
	26,299	42,791	0	0	0	0	0	0	0	0	29,259
30-34	36	17	2	0	0	0	0	0	0	0	55
	36,741	38,947	65,497	0	0	0	0	0	0	0	38,469
35-39	24	20	13	8	0	0	0	0	0	0	65
	23,357	37,354	51,408	43,223	0	0	0	0	0	0	35,719
40-44	34	17	16	14	9	0	0	0	0	0	90
	23,721	31,140	52,247	55,622	55,191	0	0	0	0	0	38,303
45-49	42	43	14	11	25	2	0	0	0	0	137
	23,212	28,200	41,310	48,720	55,985	54,721	0	0	0	0	35,115
50-54	23	26	18	21	12	21	3	0	0	0	124
	22,594	31,975	31,357	40,003	48,088	63,050	44,661	0	0	0	38,634
55-59	17	17	9	12	11	12	8	3	0	0	89
	26,780	30,926	40,175	30,970	33,903	54,933	54,458	42,235	0	0	37,176
60-64	13	8	5	7	1	3	1	3	0	0	41
	21,531	31,348	33,007	37,364	35,121	46,401	46,176	90,401	0	0	35,341
65-69	2	2	2	1	3	2	0	0	0	0	12
	24,753	29,938	19,527	62,243	43,596	31,427	0	0	0	0	33,693
70+	0	3	1	0	0	0	1	0	1	0	6
	0	26,193	38,080	0	0	0	26,261	0	71,426	0	35,724
Total Employees	236	160	80	74	61	40	13	6	1	0	671
Average Salary	25,615	32,481	42,272	43,188	49,381	57,369	49,391	66,318	71,426	0	36,123

Retiree Distribution as of January 1, 2007

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	1	0	1	2,642	0	2,642
45-49	0	0	0	0	0	0
50-54	1	3	4	38,696	74,998	113,694
55-59	26	7	33	977,541	85,544	1,063,085
60-64	30	23	53	1,004,087	273,707	1,277,794
65-69	24	20	44	475,288	251,946	727,234
70-74	28	26	54	583,144	366,284	949,428
75-79	31	28	59	483,158	272,168	755,326
80-84	22	22	44	303,938	164,238	468,177
85-89	15	29	44	189,494	203,106	392,600
90-94	7	13	20	75,442	100,106	175,549
95-99	0	6	6	0	36,520	36,520
Total	185	177	362	4,133,429	1,828,618	5,962,048
Average (Age/Payment)	71.8	76.5	74.1	22,343	10,331	16,470
Frequency Percent	51.1	48.9	100.0	69.3	30.7	100.0

Disabled Retiree Distribution as of January 1, 2007

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	0	0	0	0	0	0
45-49	2	1	3	46,799	18,633	65,432
50-54	0	1	1	0	30,243	30,243
55-59	7	0	7	192,376	0	192,376
60-64	6	0	6	132,319	0	132,319
65-69	10	0	10	228,648	0	228,648
70-74	5	0	5	124,737	0	124,737
75-79	5	1	6	103,658	8,961	112,619
80-84	3	0	3	57,251	0	57,251
85-89	1	0	1	2,772	0	2,772
90-94	1	0	1	9,751	0	9,751
95-99	0	0	0	0	0	0
Total	40	3	43	898,309	57,838	956,146
Average (Age/Payment)	68.0	60.5	67.5	22,458	19,279	22,236
Frequency Percent	93.0	7.0	100.0	94.0	6.0	100.0

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2007	\$7,233,490	\$1,973,554	\$4,551,457	\$6,922,004	\$6,213,525
2008	7,467,068	2,092,223	4,613,690	7,412,206	6,651,050
2009	7,763,976	2,217,575	4,782,139	7,936,048	7,171,786
2010	8,110,453	2,349,972	4,956,422	8,499,854	7,695,795
2011	8,448,199	2,489,795	5,136,720	9,106,189	8,284,505
2012	8,868,354	2,637,443	5,323,225	9,756,670	8,848,983
2013	9,276,917	2,793,337	5,516,129	10,453,063	9,485,612
2014	9,730,438	2,957,921	5,715,632	11,198,941	10,142,056
2015	10,179,272	3,131,661	5,921,937	11,997,856	10,872,182
2016	10,739,045	3,315,048	6,135,255	12,851,186	11,562,444
2017	11,358,280	3,508,598	6,355,798	13,757,785	12,263,901
2018	12,002,562	3,712,854	6,583,786	14,719,921	13,013,998
2019	12,683,390	3,928,389	6,025,069	15,734,049	13,004,117
2020	13,402,837	4,155,803	6,232,879	16,753,018	13,738,863
2021	14,163,093	4,395,730	6,447,213	17,829,631	14,509,480
2022	14,966,474	4,648,834	2,503,373	18,929,460	11,115,193
2023	15,815,426	4,915,817	2,554,170	19,792,135	11,446,696
2024	16,712,533	5,197,414	2,604,469	20,679,929	11,769,279
2025	17,660,527	5,494,400	2,654,124	21,592,049	12,080,046
2026	18,662,295	5,807,591	2,702,972	22,527,473	12,375,740
2027	19,720,887	6,137,842	2,750,843	23,484,905	12,652,703
2028	20,839,526	6,414,045	2,874,631	24,457,686	12,906,836
2029	22,021,618	6,702,677	3,003,990	25,448,508	13,133,557
2030	23,270,762	7,004,297	3,139,169	26,455,047	13,327,751
2031	24,590,762	7,319,491	3,280,432	27,474,560	13,483,721
2032	25,985,638	7,648,868	3,428,051	28,503,843	13,595,124
2033	27,459,636	7,993,067	3,582,313	29,539,172	13,654,916
2034	29,017,244	8,352,755	3,743,518	30,576,253	13,655,282
2035	30,663,205	8,728,629	3,911,976	31,610,159	13,587,559
2036	31,692,373	9,121,417	4,088,015	32,663,117	14,180,175

amounts in thousands

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2007, and does not take into account any subsequent changes.

1. Administration

Each of the 107 contributory retirement systems for public employees for the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

3. **Salary**

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. **Member Contributions**

Member contributions vary depending upon date hired as follows:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	Additional 2.0% of Salary in excess of \$30,000

5. **Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.)

6. **Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement

a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service
- (iv) if an employee is a State Police officer (Group 3), attainment of age 50

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

For Group 3 (State Police), the benefit is 50% of the participant's final year's rate of regular salary, plus an additional 1% for each year of service in excess of 20 years. In addition, for veterans (all groups) there is an additional benefit of \$15 per year for each year of service, up to a maximum of 20 years of service.

8. Deferred Vested Retirement

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability

a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55, he will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits

a. Occupational Death:

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. Cost-of-Living Increases

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$12,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A – Life annuity
- (ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. **Member Data**

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. **Valuation Date**

January 1, 2007.

3. **Actuarial Cost Method**

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. **Rate of Investment Return**

It is assumed that the assets of the fund will accumulate at a compound annual rate of 8.0% per annum.

5. **Cost-of-Living Increases**

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$12,000 per year.

6. Salary Scale

The assumed annual rates for salary increases including longevity are illustrated by the following rates:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
0	7.00%	8.00%
1	6.50%	7.50%
2	6.50%	7.00%
3	6.00%	6.50%
4	6.00%	6.00%
5	5.50%	6.00%
6	5.50%	5.50%
7	5.00%	5.50%
8	5.00%	5.25%
9+	4.75%	5.25%

7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC).

8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
0	0.150	0.015
1	0.120	0.015
2	0.100	0.015
3	0.090	0.015
4	0.080	0.015
5	0.076	0.015
10	0.054	0.015
15	0.033	0.000
20	0.020	0.000
25	0.010	0.000
30+	0.000	0.000

9. Annual Rate of Mortality

It is assumed that both preretirement and postretirement mortality are represented by the RP-2000 Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years for all disabled members.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0100	0.0150	0.02000
51	0.0100	0.0150	0.02000
52	0.0100	0.0200	0.02000
53	0.0100	0.0250	0.05000
54	0.0200	0.0250	0.07500
55	0.0200	0.0550	0.15000
56	0.0250	0.0650	0.10000
57	0.0250	0.0650	0.10000
58	0.0500	0.0650	0.10000
59	0.0650	0.0650	0.15000
60	0.1200	0.0500	0.20000
61	0.2000	0.1300	0.20000
62	0.3000	0.1500	0.25000
63	0.2500	0.1250	0.25000
64	0.2200	0.1800	0.30000
65	0.4000	0.1500	1.00000
66	0.2500	0.2000	1.00000
67	0.2500	0.2000	1.00000
68	0.3000	0.2500	1.00000
69	0.3000	0.2000	1.00000
70	1.0000	1.0000	1.00000

11. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
20	0.0001	0.0010
30	0.0003	0.0030
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

12. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

13. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2007 is \$160,000 and is anticipated to increase at 4.5% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. **Actuarial Accrued Liability**

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. **Actuarial Cost Method**

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. **Actuarial Present Value**

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. **Forecast**

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

7. Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

This report fairly represents the actuarial position of the City of Attleboro Retirement System contributing as of January 1, 2007, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost is reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Buck Consultants, LLC

Daniel W. Sherman, ASA, MAAA
Enrolled Actuary No. 05-4086

May 2007

BREAKOUTS

Breakouts

	<u>Total</u>	<u>All Others</u>	<u>Schools</u>	<u>Water</u>	<u>Wastewater</u>	<u>Police</u>	<u>Fire</u>	<u>Housing</u>	<u>Redevelop Auth</u>
(1) Participants									
(a) Actives	671	156	255	28	33	91	91	15	2
(b) Inactives	112	39	54	2	1	8	7	1	0
(c) Retirees	362	95	135	7	10	41	68	5	1
(e) Disabled Retirees	<u>43</u>	<u>6</u>	<u>4</u>	<u>2</u>	<u>0</u>	<u>14</u>	<u>17</u>	<u>0</u>	<u>0</u>
(f) Total	1188	296	448	39	44	154	183	21	3
(2) Payroll of Active Participants	\$24,238,213	\$5,444,722	\$5,971,285	\$1,035,774	\$1,212,724	\$5,113,947	\$4,728,873	\$572,266	\$158,622
(3) Normal Cost									
(a) Total Normal Cost	3,450,582	672,326	789,476	104,949	135,126	832,635	838,231	64,892	12,947
(b) Expected Employee Contributions	1,973,554	443,817	479,975	80,953	99,982	426,736	380,219	47,285	14,587
(c) Administrative Expenses	<u>160,000</u>	<u>31,176</u>	<u>36,607</u>	<u>4,866</u>	<u>6,266</u>	<u>38,608</u>	<u>38,868</u>	<u>3,009</u>	<u>600</u>
(d) Net Employer Normal Cost (a) - (b) + (c)	1,637,028	259,685	346,108	28,862	41,410	444,507	496,880	20,616	-1,040
(4) Actuarial Accrued Liability	118,944,459	20,291,182	22,148,987	4,823,988	4,673,652	31,627,883	33,175,185	1,807,405	396,177
(5) Assets*	<u>89,750,844</u>	<u>15,310,934</u>	<u>16,712,761</u>	<u>3,639,993</u>	<u>3,526,555</u>	<u>23,865,165</u>	<u>25,032,699</u>	<u>1,363,797</u>	<u>298,940</u>
(6) Unfunded Actuarial Accrued Liability (4) - (5)	29,193,615	4,980,248	5,436,226	1,183,995	1,147,097	7,762,718	8,142,486	443,608	97,237
(7) 1992 ERI Amortization	93,937	15,920	20,834	3,208	3,931	23,578	26,465	0	0
(8) 2003 ERI Amortization	437,543	56,796	63,641	22,580	55,533	124,127	114,865	0	0
(9) Other Amortizations*	2,083,420	355,419	387,960	84,497	81,863	553,991	581,093	31,658	6,939
(10) Total Required Employer Contributions (3d) + (7) + (8) + (9)	4,251,928	687,820	818,543	139,147	182,738	1,146,203	1,219,304	52,274	5,899
(11) Fiscal 2008 Cost	\$4,551,457	\$736,133	\$876,295	\$148,965	\$195,630	\$1,227,072	\$1,305,330	\$55,902	\$6,130
(12) Percentage of total	100.00%	16.17%	19.25%	3.27%	4.30%	26.96%	28.68%	1.23%	0.13%
(13) Fiscal 2009 Cost	\$4,613,690	\$743,311	\$883,616	\$150,544	\$198,199	\$1,247,530	\$1,326,762	\$57,569	\$6,159
(14) Percentage of total	100.00%	16.11%	19.15%	3.26%	4.30%	27.04%	28.76%	1.25%	0.13%

* Allocation is based on the ratio of the Unfunded Actuarial Accrued Liability